Antiinflammatory Effect of Peripheral Nerve Blockade

To the Editor—We read with interest Martin et al.’s1 study on the antiinflammatory effect of peripheral nerve block after total knee arthroplasty. We would be delighted to see such an outcome; however, we wish to raise the following questions on the conclusion drawn that peripheral nerve blocks have a clinical antiinflammatory effect, especially when there was no change in inflammatory mediator levels. This study’s primary outcome measure was IL-6 at 24 hours. Statistically it was powered to demonstrate a 50% reduction in IL-6 at 24 hours, with 20 patients per treatment arm. This study was not powered to demonstrate the clinical outcome measures for inflammation—knew circumference and temperature. Therefore we cannot draw any definite conclusions regarding peripheral nerve blocks and any potential antiinflammatory effects until further work is done. Second, the absence of sham blocks here can lead to observer bias. Third, the use of 20 ml of 0.75% Ropivicaine for each femoral and sciatic nerve block could have contributed towards reduced temperature and edema, given that studies have shown that Ropivicaine’s vasoactive properties cause a reduction in blood flow.2,3 Lastly, and most importantly, the reduced circumference and temperature seen may merely be the result of improved pain control and mobility. The conclusions drawn were based only on findings from postoperative days 1 to 7, with no significant differences seen between groups at a later follow-up.

We therefore feel that further investigation is required before concluding that peripheral nerve blocks reduce clinical or biochemical inflammation, and if it does so, whether it actually translates into long-term patient benefit.


References

Multiplane Reconstruction Is Better Than Plain X-ray to Measure the Tracheobronchial Tree

To the Editor—Hagihira et al.’s1 reported the usefulness of a new double-lumen endobronchial tube specially designed for patients with a short right mainstem bronchus. Using x-ray data, they outlined that Japanese patients have, on average, a shorter right mainstem bronchus than American patients. We would caution against such x-ray measurements because of the spatial orientation of the main bronchi. This is particularly important when the left mainstem bronchus diameter is measured to choose an appropriate double-lumen tube. As the left mainstem bronchus is oblique through the horizontal plane, it is necessary to perform a multiplane reconstruction of the tracheobronchial tree using transverse, sagittal, and coronal tomodensitometric slices to obtain a strictly orthogonal slice of the left mainstem bronchus.2 Such precautions are mandatory to prevent mismeasurement.

We would like to raise the following questions on the study cited by Hagihira et al.1 (Accepted for publication January 5, 2009.)

References

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